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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,940	01/30/2004	Hideyuki Takahashi	248040US0CONT	4130

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EXAMINER

PEZZUTO, HELEN LEE

ART UNIT PAPER NUMBER

1713

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/766,940	Applicant(s) TAKAHASHI ET AL.	
	Examiner Helen L. Pezzuto	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 4-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/30/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-3 in the reply filed on 11/26/04 is acknowledged. The traversal is on the ground(s) that groups I and II are not species of one another, nor does the intermediate lose its identity in the final product, as is typically the case with an intermediate-final product relationship. This is not found persuasive because applicant has not shown on record that the intermediate product is not deemed useful as is and of itself, without the presence of additional constituents which would react in-situ to produce a mutually exclusive final product species (i.e. the coating composition comprising a resin blend composition. Furthermore, as set forth in the previous restriction, the groups are classified in different area of technologies. The search of group I invention does not require the search for group II invention.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 4-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim.

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Applicant timely traversed the restriction (election) requirement in the reply filed on 11/26/04.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

What does the recited content by mass of repeating unit A1 based on? The total mass percent of the polymer itself or that of the stain-proofing agent as a whole? Please clarify.

Claim Rejections - 35 USC § 102/103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stuart et al. (US-032) or Mathai (US-611) or Rodrigues et al. (US-275) or Cook et al. (US-738) or Ivani (US-562).

US 2,993,032 to Stuart et al. discloses a polymeric additive system having the ability to impart detergent and antiwear qualities to lubricating oils. Prior art polymeric additives are derived from copolymers of oil solubilizing monomer A and an polar groups-containing ester B, and an acidic monomer C. Suitable ester compound B include esterified mono and dicarboxylic acid with a polar substituted alcohol (i.e. glucose sucrose, pentaerythritol, etc.), which encompass the instant repeating unit A1 having at least two hydroxyl groups (col. 9, line 5 to col. 10, line 13; working examples). Suitable acidic monomer C

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include hydroxylalkyl half ester and others, which embrace the instant repeating unit B1 having a crosslinking functionality as expressed in claim 2 (col. 10, lines 24-44; working examples). The examiner is of the position that the instant Octane removal work would be an inherent property of prior art polymeric additive because identical monomers are used in the formation of applicant's and prior art polymer. The burden is placed upon the applicant to provide clear evidence that the respective compositions do in fact differ. Thus, anticipating the present claims.

US 5,399,611 to Mathai discloses a hydroxyl-functional polyester diluent additive suitably used in coating composition. Prior art hydroxyl-functional polyester is derived from triols, and a combination of unsaturated and saturated monocarboxylic acids. Suitable triols/polols include trimethylolpropane and glycerol (col. 4, lines 30-33), producing esters having at least two hydroxyl groups as presently claimed A1 repeating unit (col. 6, lines 14-36; working examples) Prior art further teaches modifying the resulting hydroxyl-functional ester by copolymerization with at least one acrylic monomer such as hydroxyl (meth)acrylates (col. 5, line 6 to col. 6, line 12; working examples), which embrace the instant crosslinking-

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functional repeating unit B1 expressed in claim 2. Prior art is silent regarding the instant octane removal work expressed in claim 3. The examiner takes the position that such property is considered inherent in prior art hydroxyl-functional polyester, absent evidence that the respective polymer do in fact differ in kind.

US 5,977,275 to Rodrigues et al. discloses polymers containing pendant polysaccharide moieties, having soil resistance properties. Prior art polymers are formed by reacting a functionalized polysaccharide moiety having structure set forth at col. 3, lines 1-10, with at least one ethylenically unsaturated monomer to form a polysaccharide monomer, and subsequently polymerized or copolymerize to yield a polymer having pendant polysaccharide moieties as set forth at col. 3, lines 15-20 (col. 3, line 1 to col. 4, line 6). Suitable polysaccharide include sugars (i.e. glucose) reacting with at least one ethylenically unsaturated monomer (i.e. (meth)acrylic acid, acrylamides, etc) (col. 5, line 8 to col. 7, line 4; working examples). Prior art further teaches employing comonomers having acid, ester, anhydride and alkoxyated moieties (col. 7, lines 5-31; working examples), which embrace the instant repeating unit B1 having crosslinking

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functionality. As set forth in the preceding paragraphs, the examiner is of the position that the recited octane removal work is considered an inherent property in prior art soil-resistant polymer, absent evidence that the respective polymers do in fact differ. Thus, anticipating the present claims.

Similarly, US 5,981,738 to Cook et al. discloses a modified unsaturated cellulose ester, modified with maleic anhydride, and subsequently copolymerize with crosslinkable comonomer to form a polymeric additive in protective coating, printing inks and nail polish compositions (col. 2, line 35 to col. 3, line 47; col. 8, line 62 to col. 9, line 50; working examples). Thus, anticipating the instant stain-proofing polymer comprising A1 and B1 repeating units. The octane removal work is considered an inherent property in prior art polymer for the reasons set forth in preceding paragraphs.

US 4,447,562 to Ivani discloses aminopolysaccharides and copolymer thereof. Prior art N-acetyl-D-glucosamine as set forth at col. 2 lines 1-10 are copolymerized with (meth)acrylates, acrylonitrile, or acrylamide, etc. to form copolymers which are used in the manufacturing of medical, fibrillar, and pharmaceutical products (col. 6, lines 1-15;

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line 64 to col. 7, line 20; col. 8, line 42 to col. 9, line 22; Examples, col. 12, claim 1). Thus, anticipating the instant claims.

Prior art discussed above are directed to polymeric additives for final product which demands soil resistance properties. The examiner takes the position that the recited octane removal work is an inherent characteristic in prior art polymer product. Even if not held to be inherent, it would have been obvious and fully within the purview of one skilled in the art to determine the optimum octane removal work under the guidance of prior art disclosures so as to impart desirable degree of soil resistance to the resulting polymeric additive. Such discovery would involve only routine skill in the art.

Claim Rejections - 35 USC § 103

8. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-08-41416.

JP-416 discloses a soil-resistance fluororesin coating composition, comprising 40-60mol% chlorotrifluoroethylene, 14-50 mol% of a vinyl monomer and 16-28 mol% of a hydroxyl-containing polymerizable monomer and 0.1-3 mol% of a carboxy-containing monomer. JP-416 discloses and exemplifies glycerol monoallyl ether as the hydroxyl-

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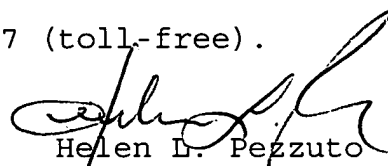
containing monomer (see [0009] and working examples in computer-translated document herein provided), which embrace the instant A1 repeating unit. Prior art vinyl monomer and carboxy-containing monomers fall within the scope of the instant B1 repeating as claimed. Once the combination of monomers used in the formation of the coating is suggested, one skilled in the art would readily envisage the optimum mass content of A1 as well as the octane removal work required to impart optimum soil resistance property to prior art coating composition. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Thus, rendering obvious the instant claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Helen L. Pezzuto
Primary Examiner
Art Unit 1713

hlp